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DIALOG(R) File 351: Derwent WPI
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WPI Acc No: 2001-551783/*200162*
  Preservatives comprising polyaminoacid derivatives, especially for use in
  cosmetic or pharmaceutical compositions, having broad-spectrum
  antimicrobial activity against bacteria, viruses, yeasts and fungi
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Inventor: BENARD S; CUPFERMAN S; PHILIPPE M
Number of Countries: 028 Number of Patents: 008
Patent Family:
Patent No
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FR 2804286
              A1 20010803 FR 20001208
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                                                20000128 200162 B
              A1 20010816 EP 2001400020
                                                20010105
EP 1123653
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JP 2001233724 A
                  20010828 JP 200120136
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US 20010036914 A1 20011101 US 2001770472
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US 6585962
             B2 20030701 US 2001770472
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ES 2213671
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                        Main IPC
                                    Filing Notes
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JP 2001233724 A
                    9 A61K-007/00
US 20010036914 A1
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US 6585962
             В2
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EP 1123653
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DE 60101486
                      A01N-037/46
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                                    Based on patent EP 1123653
ES 2213671
             Т3
                      A01N-037/46
Abstract (Basic): *FR 2804286* A1
       NOVELTY - The use of polyaminoacid derivatives (I) as preservatives
       DETAILED DESCRIPTION - The use of polyaminoacid derivative(s) of
    formula (I) or their salts as preservatives is claimed.
       X=O, S, NH or NR'';
       R''=linear or branched, saturated or unsaturated 1-6C hydrocarbyl;
       R1=H; linear or branched, saturated or unsaturated 1-40C
   hydrocarbyl (optionally substituted by one or more of OH and/or NRR'
   and/or interrupted by one or more of N, O or Si); -CH(COOH)-(CH2)sR4;
   or -(CH2)m-CH(NH2)-COOH;
       R,R'=H or as R'';
        s=0-4;
       R4=H, NH2, OH, SH, CH(OH)Me, CONH2, NH-C(NH2)-NH, Ph, C6H4OH or
    1H-imidazol-4-yl;
       R2=H; linear or branched, saturated or unsaturated 1-8C
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hydrocarbyl; or CH2Ph, CH2C6H4OH, CH2OH, CH(OH)Me or -(CH2)m-NH2;

R3=H or as R''; and

n=number of average value more than 1, such that (I) has molecular weight 100-200000, the repeating units being the same or different. INDEPENDENT CLAIMS are also included for:

- (1) a method for preserving cosmetic or pharmaceutical compositions, involving incorporation of (I); and
- (2) cosmetic or pharmaceutical compositions containing (I) as preservative.

ACTIVITY - Antibacterial; virucide; fungicide. The number of Escherichia coli, Pseudomonas aeruginosa, Enterococcus faecalis and Candida albicans was reduced to less than 200 per ml in all cases (compared with more than 106 per ml in controls) on contact for 7 days with an aqueous composition containing 0.05 wt. % of a polyaminoacid (Ia) obtained by reacting sarcosine N-carboxy-anhydride with oleylamine (degree of polymerization 10.5).

MECHANISM OF ACTION - None given.

- USE (I) show antimicrobial (especially antibacterial, antiviral, anti-yeast and/or antifungal) activity, and are especially used as preservatives in cosmetic or pharmaceutical compositions (all claimed). The compositions specifically contain (I) at 0.001-30 (preferably 0.01-15, especially 0.5-5) wt. %; and consist of:
- (1) facial, body or lip make-up products (e.g. color foundation, blusher, eye-shadow, masking stick, eye-liner, mascara, lipstick, nail varnish or nail-care product);
- (2) cosmetic or dermatological care products for the skin of the face, body, scalp or lips (specifically a lip care base; fixing base for lipstick; sunscreen or artificial tanning composition; facial care or treatment composition (e.g. a day or night, antiwrinkle or moisturizing product); face matting product; cleaning or make-up removal gel or cream; body protection or care milk; or cleansing milk);
 - (3) deodorants, after-shave gels or lotions or depilatory creams;
 - (4) pharmaceutical compositions;
 - (5) solid compositions such as soaps or cleansing packs;
 - (6) aerosol compositions containing pressurized propellant;
- (7) hair care compositions, especially a shampoo, plaiting lotion, treatment lotion, styling gel or cream, dyeing composition (especially for oxidation dyeing and possibly in the form of a dyeing shampoo), restructuring composition, perming composition, antiparasitic shampoo, anti-dandruff lotion or shampoo or medicated shampoo for seborrhea treatment; or
 - (8) buccal-dental compositions, e.g. toothpastes (all claimed).
- (I) have previously been used for moisturization and hair treatment; see FR2776510.

ADVANTAGE - (I) show potent, broad-spectrum antimicrobial activity, are non-toxic, non-allergenic and non-irritating, have a clearly defined chemical structure, are easy to prepare on an industrial scale, and have good solubility in and compatibility with conventional cosmetic media (especially aqueous media).

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International Patent Class (Additional): A01N-037/44; A01N-043/50;
 A01N-061/00; A61K-006/00; A61K-007/021; A61K-007/025; A61K-007/032;
 A61K-007/043; A61K-007/06; A61K-007/075; A61K-007/09; A61K-007/11;
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